will be evident from the following description of preferred embodiments and the attached drawings.

There is shown, in:

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Figure 1 a profile part with a quadratic cross-section,

Figure 2 a profile part with L-shaped cross-section,

Figure 3 a profile part with the cross-section of a regular octagon,

Figure 4 a profile part with a U-shaped cross-section,

Figure 5 a profile part with a cross-shaped cross-section,

Figure 6 a profile part with a double T cross-section, and

Figure 7 different views of a shaft manufactured from the steel material according to the invention.

In Figures 1 to 6, different profile parts are shown that differ substantially in their cross-section, which however remain constant in the case of the respective profile part over their length, wherein the length of the profile parts can in principle, be as desired.

- For practical purposes, such profile parts typically have lengths of approximately 6 m, but if they are sufficiently flexible they can also be wrapped into rolls and are then transportable in significantly greater lengths. Clearly, hollow profiles such as, for example, pipes, with the greatest variation of cross-section shapes can also be manufactured with the features according to the invention.
- In the case of the profile parts shown, the longitudinal edge, sharp corner areas can be more or less greatly rounded off. Precipitation hardening of the parts is done inductively and can thus be selectively limited to areas as desired, that is to say to different longitudinal sections and to different cross-section areas.

Hardening is preferably done in a surface layer, the total cross-section of which comprises between 1 and 50% of the total profile cross-section, or respectively the wall thickness of the steel material.